IN TEX UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)

BIRKELUND, et al.)

Serial No.: 09/446,677)
Filed: March 24, 2000)

For: NOVEL SURFACE EXPOSED

PROTEINS FROM...

Art Unit: 1645

Examiner: SHAHNAN-SHAH, I

Washington, D.C.

February 27, 2002

Docket No.: BIRKELUND=1

ELECTION WITH TRAVERSE

Commissioner of Patents Washington, D.C. 20231

Sir:

1. In response to the restriction requirement mailed September 27, 2001, applicants elect group I with traverse. PCT unity rules apply.

The examiner characterizes group I (claims 1-3, 6 and 8) as "drawn to antibodies against outer membrane of Chlamydia pneumoniae and their method of detection". Claim 6 is directed to an antibody against any of a markush group of chlamydial proteins. Claim 8 is to a diagnostic kit comprising such an antibody. Claims 1-3 are to diagnostic methods comprising the detection of such antibodies in a sample.

The Examiner asserts that group I is the main invention and lacks novelty, thereby depriving groups I-IV of a unifying inventive concept.

The Examiner asserts that Melgosa et al. teach detecting antibodies against outer membrane complex proteins of *Chlamydia pneumoniae* by means of Western blots and immunoassays. Additionally, the Examiner asserts that Kuroiwa et al. disclose antibodies which have specific reactivity to the major outer membrane protein of *Chlamydia pneumoniae*, and teach diagnostic reagents and kits for detecting *Chlamydia pneumoniae*.

However, nowhere in Melgosa et al. or Kuroiwa et al. has it been disclosed or suggested to raise antibodies against any of the 12 <u>specified</u> chlamydial protein sequences of claim 1.

To the extent that the reference to "variants" and

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"subsequences" may have led the Examiner to find anticipation, it is noted that the "variants" of claim 1 are now limited to those 50% identical with a reference protein, and that the subsequences are now at least 6 a.a. (claim 1) or 100 a.a. (new claim 17) of a reference protein sequence.

2. In response to the species restriction, applicants elect SEQ ID NO:2, with traverse. Traversal is on the ground that a generic claim is allowable.

Respectfully submitted,

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By

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NAME UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Application of:

Art Unit: 1645

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SECOND PRELIMINARY AMENDMENT

Commissioner of Patents Washington, D.C. 20231

Sir:

In response to the restriction requirement mailed September 27, 2001, please enter the following amendments and remarks:

IN THE CLAIMS

Please amend claims 1 and 8 as follows:

01

I (amended). Species specific method for identifying infection of a mammal with Chlamydia pneumoniae, said method comprising detecting in a patient or in a patient sample the presence of antibodies against (i) one or more proteins from the outer membrane of Chlamydia pneumoniae, said proteins being outer membrane proteins selected from proteins having the sequence as shown in SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:18, SEQ ID NO:20, SEQ ID NO:22, or in SEQ ID NO:24, (ii) a variant which has at least 50% sequence similarity with any of said proteins, or (iii) a subsequence of at least 6 consecutive amino acids of any of said proteins.



8 (amended). A diagnostic kit for the diagnosis of infection of a mammal, such as a human, with Chlamydia pneumoniae, said kit comprising an antibody against (i) a protein with the amino acid sequence SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:18, SEQ ID NO:20, SEQ ID NO:22, or SEQ ID